

suitable mechanical ventilation or respiratory protective equipment shall be provided.

(2) Employees performing any type of welding, cutting or heating shall be protected by suitable eye protective equipment in accordance with the requirements of § 1915.153.

(g) *Residues and cargoes of metallic ores.* (1) Residues and cargoes of metallic ores of toxic significance shall be removed from the area or protected from the heat before ship repair work which involves welding, cutting or heating is begun.

[47 FR 16986, Apr. 20, 1982, as amended at 67 FR 44541, July 3, 2002]

§ 1915.53 Welding, cutting and heating in way of preservative coatings.

(a) The provisions in this section shall apply to all ship repairing, shipbuilding and shipbreaking operations except for paragraphs (e) and (f) of this section which shall apply to ship repairing and shipbuilding and shall not apply to shipbreaking.

(b) Before welding, cutting or heating is commenced on any surface covered by a preservative coating whose flammability is not known, a test shall be made by a competent person to determine its flammability. Preservative coatings shall be considered to be highly flammable when scrapings burn with extreme rapidity.

(c) Precautions shall be taken to prevent ignition of highly flammable hardened preservative coatings. When coatings are determined to be highly flammable they shall be stripped from the area to be heated to prevent ignition, or, where shipbreaking is involved, the coatings may be burned away under controlled conditions. A 1½ inch or larger fire hose with fog nozzle, which has been uncoiled and placed under pressure, shall be immediately available for instant use in the immediate vicinity, consistent with avoiding freezing of the hose.

(d) *Protection against toxic preservative coatings.* (1) In enclosed spaces, all surfaces covered with toxic preservatives shall be stripped of all toxic coatings for a distance of at least 4 inches from the area of heat application or the employees shall be protected by air line

respirators meeting the requirements of § 1915.154.

(2) In the open air, employees shall be protected by a filter type respirator in accordance with the requirements of § 1915.154.

(e) Before welding, cutting or heating is commenced in enclosed spaces on metals covered by soft and greasy preservatives, the following precautions shall be taken:

(1) A competent person shall test the atmosphere in the space to ensure that it does not contain explosive vapors, since there is a possibility that some soft and greasy preservatives may have flash points below temperatures which may be expected to occur naturally. If such vapors are determined to be present, no hot work shall be commenced until such precautions have been taken as will ensure that the welding, cutting or heating can be performed in safety.

(2) The preservative coatings shall be removed for a sufficient distance from the area to be heated to ensure that the temperature of the unstripped metal will not be appreciably raised. Artificial cooling of the metal surrounding the heated area may be used to limit the size of the area required to be cleaned. The prohibition contained in § 1915.34(b)(2) shall apply.

(f) Immediately after welding, cutting or heating is commenced in enclosed spaces on metal covered by soft and greasy preservatives, and at frequent intervals thereafter, a competent person shall make tests to ensure that no flammable vapors are being produced by the coatings. If such vapors are determined to be present, the operation shall be stopped immediately and shall not be resumed until such additional precautions have been taken as are necessary to ensure that the operation can be resumed safely.

[47 FR 16986, Apr. 20, 1982, as amended at 67 FR 44542, July 3, 2002]

§ 1915.54 Welding, cutting and heating of hollow metal containers and structures not covered by § 1915.12.

The provisions of this section shall apply to ship repairing, shipbuilding and shipbreaking.